

In the Claims

1. (currently amended) An electrochemical gas sensor, comprising:
a substrate having a surface;
a first electrode deposited on said surface;
a second electrode spaced apart from said surface; and
an electrolyte support placed between said surface and said second electrode
and having a predetermined porosity[[;]], wherein said electrolyte support is in a solid state and further comprises a plurality of columns; and where
electrolyte is placed between said plurality of columns.
2. (cancelled)
3. (cancelled)
4. (currently amended) The electrochemical gas sensor according to claim 3₁,
further including a coating on said second electrode for preventing flooding by said
electrolyte.
5. (original) The electrochemical gas sensor according to claim 1, wherein said
electrolyte support further includes a cap.
6. (currently amended) The electrochemical gas sensor according to claim 2₁,
wherein said plurality of columns are helix shaped.
7. (currently amended) The electrochemical gas sensor according to claim 3₁,
wherein said electrolyte is an acid solution.

8. (original) The electrochemical gas sensor according to claim 1, wherein said predetermined porosity is in the range of between 5% and 80%.
9. (original) The electrochemical gas sensor according to claim 1, wherein said predetermined porosity is in the range of between 5% and 50%.
10. (original) The electrochemical gas sensor according to claim 1, wherein said predetermined porosity includes a pore size in the range of between .0002 and 10 microns.
11. (original) The electrochemical gas sensor according to claim 1, wherein said predetermined porosity includes a pore size in the range of between .0002 and 2 microns.
12. (original) The electrochemical gas sensor according to claim 1, wherein said second electrode has a porosity magnitudes less than said electrolyte support.
13. (original) The electrochemical gas sensor according to claim 1, wherein said second electrode further includes a porosity of less than 5% and a pore size not exceeding the smaller of either a width or length of said second electrode at a pore's greatest measurement.
14. (original) The electrochemical gas sensor according to claim 1, wherein said second electrode provides improved lamination to said electrolyte support.
- 15-24. (cancelled)